

Based on IDEMITSU Stereo-regularity Control Tech.

Crystalline Polyalphaolefin

CPAO

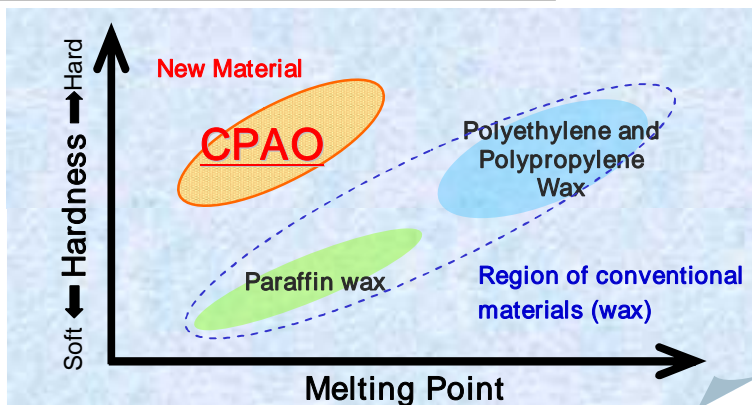
DEVELOPMENTAL PRODUCT

For Wax Modifier, Resin Modifier and Adhesive Modifier, etc

Excellent Properties

- Low melting point and hard
- Melt sharply
- Not sticky in solid state and easy to handle
- Soluble in a variety of solvents
- Excellent thermal stability

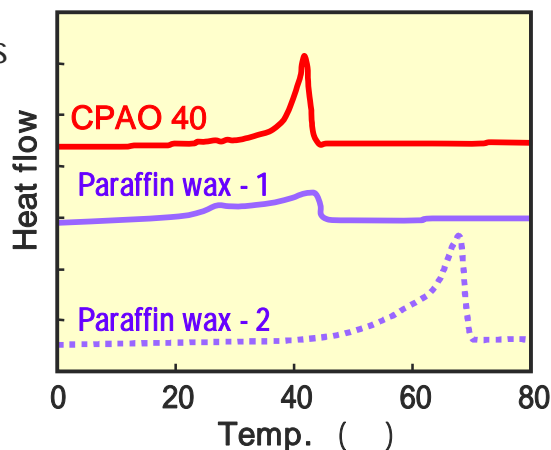
Hard with low melting point



Fusion property

- New applications required thermal sensitivity at lower temperature are expected.

Fig. DSC thermograms



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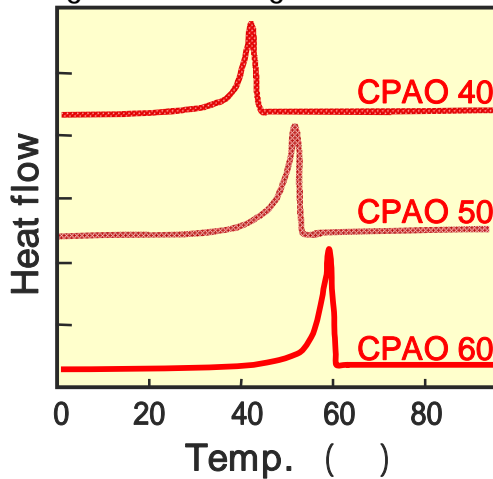
CPAO

DEVELOPMENTAL PRODUCT

Melting property

- Various line-up in melting points

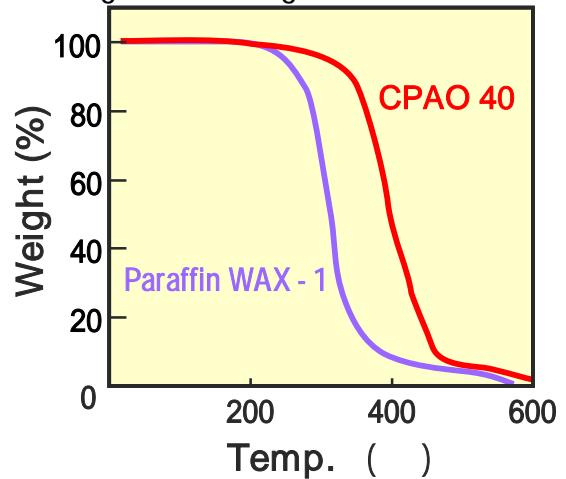
Fig. DSC thermograms



Thermal stability

- Applicable for high-temperature molding

Fig. TG thermograms



Solubility

- Soluble in hydrocarbons solvent
- Easy to remove

Solvent	CPAO 40	Paraffin wax-1	Paraffin wax-2	PE wax
Toluene	excellent	fair	fair	fair or poor
Methylcyclohexane	excellent	fair	fair	poor
Heptane	excellent	fair	fair	poor
Methanol	poor	poor	poor	poor

- r.t., wax 25wt%, - **excellent**: homogeneously soluble, **fair**: cloudy, **poor**: not soluble
 - Melting point ; Paraffin wax-1:43 , Paraffin wax-2:68 , PE Wax:108

Typical properties

Property	CPAO			Comparable materials	
	CPAO 40	CPAO 50	CPAO 60	Paraffin wax	PE wax
Density (kg ³ /m)	900	900	900	910	920
Melting point ()	41	51	58	53	108
Heat of fusion (J/g)	79	102	112	190	122
Temp. of 5wt% loss in the air ()	320	320	320	250	320

-Melt viscosities are adjustable in the range of 50-1500(mPa·S @140).

* Data in this Catalogue shows sample figures measured under certain specific conditions.

* Usage of products in this Catalogue does not warrant the successful results of applications of the product for specific usage.

* Please note that the content of this Catalogue may be altered from time to time according to improvement of products without prior notice.

* Figures of physical characteristics of other resins than the products have been referred from other catalogues and sources thereof.

* The content of this material is based upon reliable tests and information, but it does not warrant the successful results of its application to your own purpose and usage.